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c. a support operatively mounted within said internal cavity of the product storage chassis for supporting said products in a plurality of selectable and separate ordered queues of such products at an inclined angle to the horizontal; wherein said support includes a low friction floor portion in said at least one of said queues; and

d. a robotic assembly mounted to said chassis and operatively movable within said internal cavity in response to said vend control signal to rapidly and smoothly remove and carry a selected said product from its associated said ordered queue to said product delivery port without dropping or jarring the selected product; wherein a customer can view the entire product removal and carrying operations of a vending cycle of the machine through said transparent panel portion.—

REMARKS

This Amendment and Response are being submitted in reply to the Official Action dated July 14, 1999, and within the statutory period for response thereto. An appropriate extension of time request and accompanying fee are being submitted herewith.

Changes to the drawings as noted in the Draftperson's Patent Drawing Review will be held in abeyance pending a final disposition of the claim prosecution in this case.

The Examiner has allowed claims 90–130.

Claims 10, 14–17, 22, 25, 28–33, 49, 60–62, 70, 73–84 and 89 have been objected to as being dependent upon a rejected base claim, but have been indicated to be allowable if rewritten in independent form. These claims have now been represented in independent form as new rewritten claims 131–161 with the following correspondence: 10–131; 14–132; 15–133; 16–134; 17–135; 22–136; 25–137; 28–138; 29–139; 30–140; 31–141; 32–142; 33–143; 49–144; 60–145; 61–146; 62–147; 70–148; 73–149; 74–150; 75–151; 76–152; 77–153; 78–154; 79–155; 80–156; 81–157; 82–158; 83–159; 84–160; and 89–161. All of these claims are now believed to be in proper form for allowance, and allowance of all of these claims is respectfully solicited.

Claims 1–6, 8, 9, 12, 13, 18, 37, 42–48, 50, 55–59, 63 and 64 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Taylor et al. Applicants submit that such rejection was improper since the recited claims clearly distinguished over Taylor. Moreover, the independent claims 1, 27, 37 and 65 have been further amended to even more clearly and distinctly point out the novel features of Applicants' invention. Claim 1 calls for a method of vending beverages in containers which involves storing the containers in upright standing

manner wherein they can be visually presented to and viewed by a customer such that the customer can actually visually select his/her desired beverage container prior to the vend operation. The vend operation includes transferring the visually selected beverage container from the container queue in its same upright standing condition, to a robotic assembly and transferring the container, still in the upright condition, by the robotic assembly to the vending machine delivery port. The entire operation is performed without rolling or jarring or tipping the container or subjecting the container to severe impact forces. The container is gently moved in its upright condition, and when transfer between the container queue and the robotic assembly is effected, such transfer is accomplished by means of a simple sliding motion, having minimal effect upon the contents of the container.

The claimed process is neither disclosed nor taught by Taylor. The customer cannot visually view the products available for vending prior to selection of his/her choice. Such ability to visually review and select a product is a significant marketing tool in the vending industry that has been used with significant success for hard packaged snack-type goods. However, the same principles have not generally been found to be very workable with the vending of beverages, due to the difficulties associated with vending beverages in a manner that is also visually appealing during the vend process. The Taylor configuration stores the containers on their sides, and rolls the containers onto the elevator collector assembly. Such configuration does not allow the containers to be stood up in a manner that would allow them to be arranged so that their brand labels are visible to the customer for his marketing/selection process. Further, the Taylor configuration cannot satisfy Applicants' claim language requiring the container to be moved, transferred and carried from the queue to the delivery port – all in an upright standing manner and without subjecting the container to impact forces that "shake" its contents.

Clearly, Taylor does not anticipate the amended independent claims 1, 27, 37 or 65 of the application as now presented. Accordingly, withdrawal of the 35 U.S.C. § 102(b) rejections are respectfully solicited.

The Examiner has further rejected the claims under 35 U.S.C. § 103(a) as being unpatentable over Taylor et al. in view of Troutead et al. and/or in view of Taylor and Spamer. Applicants submit that these rejections are also improper, since the combined teachings of the cited references do not describe Applicants' invention as now recited in the claims. As stated above with respect to Taylor, there are no teachings in Taylor as to how one would configure a vending system to allow visual selection and gentle upright carrying of the selected container from its selection queue to the delivery port. Taylor discloses and teaches how to roll a container

on its side and how to roll the container from the elevator mechanism to the delivery port. All of these motions have an agitating effect upon the contents of the container. Troutaud does not relate to liquid beverages, but addresses the vending of frozen packages from spring-loaded cartridges. The contents of such containers do not care whether they are subjected to impact or jarring forces during the vending process. There are no teachings in Troutaud as to how or why one would want to exercise any special care in the vending process so as to insure maintenance of the container being vended, in an upright/standing position. As a matter of fact, the container of Troutaud is physically tipped over and dumped from its elevator assembly into the delivery chute of the vending machine. If such container were in fact a bottled beverage, the contents would be severely agitated by such a move. Accordingly, there are neither disclosures nor teachings in Taylor or Troutaud or any of the other art of record that would lead one skilled in the art to configure a vending machine and vending machine delivery system in the manner now described by Applicants' independent claims remaining in the application. Further, if one were to somehow combine the teachings of Taylor and Troutaud as suggested by the Examiner, Applicants' claimed invention would not result therefrom.

Applicants submit that they have made a contribution to the art which should be recognized by the allowance of claims commensurate in scope with their invention. Applicants believe that all the claims remaining in the application do in fact describe their invention in such clear, concise and exact terms and in a novel and unobvious manner over the known art, and respectfully request reconsideration and allowance of all claims remaining in the application.

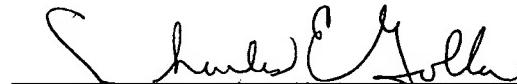
For the above reasons, Applicants submit that their invention is novel and is not rendered obvious by any of the teachings of the cited or known art. Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. § 103 rejections and passage of all claims remaining in the application onto allowance.

If the Examiner has any questions regarding this Amendment and Response or remarks made herein, he is respectfully requested to telephone the Applicants' undersigned attorney Charles E. Golla at 612-336-4786 to discuss any questions or issues he may have.

Respectfully submitted,

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